

REMARKS

In an Office Action dated October 19, 2004, the Examiner rejected claims 6-11, and more particularly claims 6 and 9, under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner rejected claims 1-5, 5-7, and 9-11 under 35 U.S.C. §103(a) as being unpatentable over Rinchiuso et al. (U.S. patent no. 6,144,651, hereinafter referred to as "Rinchiuso") in view of Sharon et al. (U.S. patent no. 6,704,543, hereinafter referred to as "Sharon"). The Examiner objected to claims 4 and 8 as being allowable if rewritten to overcome the §112 rejections and to include the limitations of the base claim and any intervening claim. The rejections and objections are traversed and reconsideration is hereby respectfully requested.

The Examiner rejected claims 6-11 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner stated that it is unclear how, in claim 6, the second plurality of uplink voice transmissions is determined from the first plurality of uplink voice transmissions, and that it unclear how, in claim 9, the second plurality of uplink transmissions are taken from the first plurality of uplink transmissions. The applicants respectfully disagree.

Both claims 6 and 9 specifically provide that the second plurality of uplink voice transmissions is determined from the first plurality of uplink voice transmissions based on an energy of each uplink transmission of the first plurality of uplink transmissions. Support for, and a full description of, such a determination may be found on pages 9 and 10 of the specification. The applicants contend that they should not be required to claim the specific algorithm used to determine the second plurality of uplink voice from the first plurality of uplink voice transmissions based on an energy of each uplink transmission as a variety of algorithms may occur to one of ordinary skill in the art and the applicants should not be restricted to a specific algorithm. As the applicants believe that the claimed feature is not unclear and is fully supported in the specification, the applicants respectfully request that the Examiner withdraw the §112 rejection of these claims.

The Examiner rejected claims 1-5, 5-7, and 9-11 under 35 U.S.C. §103(a) as being unpatentable over Rinchiuso in view of Sharon. In particular, the Examiner stated that Rinchiuso discloses receiving multiple uplink transmissions from multiple remote units (FIG. 1; col. 2, lines 21-27; col. 3, lines 20-25; col. 7, lines 17-25) and determining multiple remote units (col. 3, lines 18-34; col. 7, lines 20-25). The Examiner further contended that Rinchiuso discloses a subset of the plurality of remote units that is determined based on an energy of an uplink transmission of each remote unit of the plurality of remote units ("the set of remote units that participate in a multicast session and the set of remote units sending a message for participation, see figure 6").

The Examiner acknowledged that Rinchiuso does not disclose combining uplink transmissions of the plurality of uplink transmissions to produce a combined signal and transmitting the combined signal to a base station to be broadcast via a downlink communication signals to the plurality of remote units. However, the Examiner contended that these features are disclosed by Sharon (FIG. 19; col. 14, lines 26-35).

The applicants respectfully disagree. Rinchiuso teaches a broadcast-multicast session, not a group call. In Rinchiuso, a remote unit conveys to a base station a request to participate in a broadcast-multicast session. In response to receiving the request, the base station determines if it, the base station, is already subscribed to the session (that is, the base station determines whether it has received an earlier request from another remote unit to subscribe to the session and, in response to receiving the earlier request, subscribed to the session). When the base station is not already subscribed to the session, the base station now subscribes to the session. The requests to participate in a broadcast-multicast session transmitted by each remote unit to the base station are the only uplink transmissions taught by Rinchiuso. Nowhere does Rinchiuso teach any determination of an energy of the uplink transmissions (the requests to participate in the session) or a determination of a subset of the multiple remote units subscribing to the session, let alone a determination of a subset of the multiple remote units requesting to participate in the session based on an energy of the requests to participate.

Sharon teaches a satellite communication system wherein an uplink signal is transmitted to a satellite and the satellite may then broadcast the signal via each of one or

more downlink spot beams. While the teachings of the section cited by the Examiner, that is, col. 14, lines 26-35, are unclear (for example, nowhere does Sharon teach where "the input spot beam antennas" reside - since spot beams are downlink beams, are the input spot beam antennas in terrestrial elements of the system?), it is certainly clear that nowhere does Sharon teach any determination of an energy of the uplink transmissions or any determining of a subset of a plurality of remote units, let alone any determining of a subset of remote units based on an energy of an uplink transmission of each remote unit from the plurality of remote units.

Therefore, neither Rinchiuso or Sharon, individually or in combination, teach the limitations of claim 1 of receiving multiple uplink transmissions from multiple remote units and determining a subset of the multiple remote units, wherein the subset is determined based on an energy of an uplink transmission of each remote from the multiple remote units, combining uplink transmissions of the multiple uplink transmissions that are associated with the subset to produce a combined signal, and transmitting the combined signal to a base station to be broadcast via a downlink communication signal to the multiple remote units. Accordingly, the applicants respectfully request that claim 1 may now be passed to allowance.

Since claims 2-5 depend upon allowable claim 1, the applicants respectfully request that claims 2-5 may now be passed to allowance.

Claim 6 includes limitations of determining second multiple uplink voice transmissions from first multiple uplink voice transmissions received from , wherein the second multiple uplink voice transmissions are associated with a subset of the multiple remote units and are determined based on an energy of their transmission, combining the second multiple uplink voice transmissions, and transmitting the combined uplink voice transmissions to a base station to be broadcast via a downlink voice channel to the multiple remote units. As noted above, these limitations are not taught by Rinchiuso or Sharon, individually or in combination. Accordingly, the applicants respectfully request that claim 6 may now be passed to allowance.

Since claims 7 and 8 depend upon allowable claim 6, the applicants respectfully request that claims 7 and 8 may now be passed to allowance.

With respect to claim 9, as noted above, nowhere does Rinchiuso teach receiving a first multiple uplink transmissions from a multiple remote units as an input and outputting a second multiple uplink transmissions taken from the first multiple uplink transmissions, wherein the second multiple uplink transmissions are associated with a subset of the multiple remote units and are determined based on an energy of each uplink transmission of the first multiple uplink transmissions. These features are not taught by Sharon either. Therefore, neither Rinchiuso nor Sharon, individually or in combination, teach the logic unit of claim 9. Accordingly, the applicants respectfully request that claim 9 may now be passed to allowance.

Since claims 10 and 11 depend upon allowable claim 9, the applicants respectfully request that claims 10 and 11 may now be passed to allowance.

The applicants have added new claims 12-15. Claim 12 provides for receiving multiple uplink transmissions from multiple remote units, determining a subset of the multiple remote units, wherein the subset is determined based on an energy of an uplink transmission of the multiple uplink transmissions received from each remote of the multiple remote units, and assigning an uplink high speed data channel to the subset of the multiple remote units. Rinchiuso teaches nothing concerning uplink high speed data channels. Sharon nowhere teaches the features of claim 12 of determining a subset of multiple remote units, wherein the subset is determined based on an energy of an uplink transmission of the multiple uplink transmissions received from each remote of the multiple remote units and assigning an uplink high speed data channel to the subset. Accordingly, the applicants respectfully request that claim 12 may now be passed to allowance.

Since claims 13-15 depend upon allowable claim 12, the applicants respectfully request that claims 13-15 may now be passed to allowance.

As the applicants have overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the applicants contend that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicants respectfully solicit allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Respectfully submitted,
Shaowei Pan

By: 

Steven A. May
Attorney for Applicants
Registration No. 44,912
Phone No.: 847/576-3635
Fax No.: 847/576-3750